

REMARKS

This application is amended in a manner to place it in condition for allowance at the time of the next Official Action.

**Status of the Claims**

Claims 1-6, 9 and 10 are amended, and claims 17-24 are new. The new and amended claims are believed to be directed to the previously elected and examined subject matter. Support for the amendment to the claims may be found, for example, at page 6, lines 1-10, page 8, lines 1-12 and the discussion of the examples.

Claims 7-8 are cancelled.

Claims 1-6, 9 and 10 and 17-24 remain in this application.

**Claim Objections**

Claim 5 was objected to for including a typographical error, e.g., p-casein instead of  $\beta$ -casein. Claim 5 and claims 2-4 were amended for previously presented typographical errors concerning the " $\beta$ -casein" recitation.

**Claim Rejections-35 USC §102**

Claims 1-10 were rejected under 35 U.S.C. §102(b) as being anticipated by ELLIOT et al. WO 96/14577 (ELLIOT). This rejection is respectfully traversed for the reasons below.

ELLIOT was offered for teaching a general method comprising testing milk from identified cows for the presence of variants of  $\beta$ -casein, selecting the cows whose milk contains the A2 variant of  $\beta$ -casein, milking those cows, and recovering the milk. The Official Action further noted that ELLIOT teaches that the milk should not contain the A1 variant of  $\beta$ -casein.

The position of the Official Action was that method of ELLIOT inherently meets the claimed method steps.

However, ELLIOT does not disclose several of the currently recited steps in independent claims 1 and 17.

Most significantly, ELLIOT is focused on identifying the cows which have variants of  $\beta$ -casein with non-diabetogenic activity, and selecting their milk. However, there is no discussion of the saturated fatty acid or unsaturated fatty acid content in their milk.

Accordingly, ELLIOT does not disclose analyzing  $\beta$ -casein genotype test results to determine the level of saturated fatty acids relative to the level of unsaturated fatty acids in milk obtainable from cows, a proportion having DNA encoding  $\beta$ -casein having a proline residue at position 67 and another proportion having DNA encoding  $\beta$ -casein having a histidine residue at position, as recited in claim 1.

With no apparent interest in the level of saturated fatty acids or unsaturated fatty acids in milk, ELLIOT does not even suggest newly recited steps 17 (b), (c) and (d), which are

directed to using genotype test results to obtain a milk of a predetermined level of saturated fatty acids relative to the level of unsaturated fatty acids in milk.

Therefore, ELLIOT does not anticipate the claimed the invention as now defined in claims 1-6, 9 and 10 and 17-24, and withdrawal of the rejection is respectfully requested.

Claims 1-7 and 9-10 were rejected under 35 U.S.C. §102(e) as being anticipated by MCLACHLAN US 6,570,060 (MCLACHLAN). This rejection is respectfully traversed for the reasons below.

MCLACHLAN was offered for teaching a method which includes determining which cows from a herd produce milk containing  $\beta$ -casein having a proline at position 67, selecting cows that produce milk containing  $\beta$ -casein having a proline at position 67, and milking the selected cows.

However, as acknowledged in the Official Action, MCLACHLAN does not disclose reducing the level of saturated fatty acids relative to the level of unsaturated fatty acids in the milk obtained.

Accordingly, MCLACHLAN does not disclose determining the level of saturated fatty acids relative to the level of unsaturated fatty acids in milk obtainable from cows, where one proportion has DNA encoding  $\beta$ -casein having a proline residue at position 67 and another proportion has DNA encoding  $\beta$ -casein having a histidine residue at position, as recited in independent

claim 1. MCLACHLAN also does not disclose using genotype test results to obtain a milk of a predetermined level of saturated fatty acids relative to the level of unsaturated fatty acids in milk, as recited in independent claim 17.

Therefore, MCLACHLAN does not anticipate any of claims 1-6, 9 and 10 and 17-24, and withdrawal of the rejection is respectfully requested.

### **Double Patenting**

Claims 1-7 and 9-10 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over (i) claims 1-22 of U.S. Patent No. 6,570,060 or (ii) claims 1-19 of U.S. Patent No. 7,094,949 or (iii) claims 1-8 of U.S. Patent No. 7,157,616. These rejections are respectfully traversed.

The position of the Official Action was that the claims from each of these three patents inherently disclose the presently claimed invention. However, none of the issued claims from these patents explicitly recite fatty acid levels relative to the cows, or the active steps carried out by independent claims 1 and 17 concerning fatty acid levels of the milk obtained from the cows.

For example, amended claim 1 requires the active steps of analyzing genotype test results to determine the proportion of cows that have DNA encoding  $\beta$ -casein having a proline residue at

position 67 and the proportion of cows that have DNA encoding  $\beta$ -casein having a histidine residue at position 67, and using these results to determine the level of saturated fatty acids relative to the level of unsaturated fatty acids in milk obtainable from these cows.

New claim 17 requires determining the proportion of cows that have DNA encoding  $\beta$ -casein having a proline residue at position 67 and the proportion of cows that have DNA encoding  $\beta$ -casein having a histidine residue at position 67 that are required to provide the predetermined level of saturated fatty acids relative to the level of unsaturated fatty acids in milk obtained from the cows, using genotype test results to select cows to give the proportions of cows required to provide these predetermined levels of fatty acids, and milking the selected cows to give milk having the predetermined level of saturated fatty acids relative to the level of unsaturated fatty acids.

Therefore, as none of these cited patents claims determining the fatty acid level, these patents do not render obvious the claimed invention, and withdrawal of the rejection is respectfully requested.

### **Conclusion**

In view of the amendment to the claims and the foregoing remarks, this application is in condition for allowance

at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our credit card which is being paid online simultaneously herewith for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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